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	,		2143	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	10/003,531	DESHPANDE, SACHIN	G.				
Office Action Summary	Examiner	Art Unit					
	George C. Neurauter, Jr.	2143	İ				
The MAILING DATE of this communication ap Period for Reply	pears on the cover sheet with th	e correspondence address					
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).							
Status							
1) Responsive to communication(s) filed on <u>02 J</u>	<u>lune 2005</u> .		ļ				
2a) This action is FINAL . 2b) ⊠ This	s action is non-final.						
3) Since this application is in condition for allowa	•		s is				
closed in accordance with the practice under	Ex parte Quayle, 1935 C.D. 11,	453 O.G. 213.					
Disposition of Claims							
4)⊠ Claim(s) <u>1-39</u> is/are pending in the application	1.						
4a) Of the above claim(s) is/are withdra	wn from consideration.						
5) Claim(s) is/are allowed.	5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-39</u> is/are rejected.							
7) Claim(s) is/are objected to.							
8) Claim(s) are subject to restriction and/o	or election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine	er.						
10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.							
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).							
11) The oath or declaration is objected to by the Ex	xaminer. Note the attached Offi	ce Action or form PTO-152	<u>?</u> .				
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:	n priority under 35 U.S.C. § 119	(a)-(d) or (f).					
1. ☐ Certified copies of the priority documents have been received.							
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage							
application from the International Burea	application from the International Bureau (PCT Rule 17.2(a)).						
* See the attached detailed Office action for a list of the certified copies not received.							
Attachment/c\							
Attachment(s) Notice of References Cited (PTO-892)	4) T Interview Summa	ary (PTO-413)					
Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date							
Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5) Notice of Informal Patent Application (PTO-152) 6) Other:							
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DETAILED ACTION

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Claims 1-39 are currently presented and have been examined.

Response to Arguments

Applicant's arguments with respect to claims 1-39 have been considered but are moot in view of the new ground(s) of rejection.

Claim Interpretation

The element "user data" or "multimedia data" defined on page 3, lines 19 and 26-27 of the specification as admitted by the Applicant and recited in claims 1-39 will be given its broadest reasonable interpretation and will be interpreted by the Examiner as data that comprises audio, video, or any other data, or a combination of any or all of them that is consistent with the disclosures of the specification and the interpretation that those skilled in the art would reach. See MPEP § 2111.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

⁽b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-7, 13-16, 19, 24-32, and 38-39 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over "Virtual Network Computing" ("VNC").

Regarding claim 1, "VNC" discloses a system for transmitting data (referred to throughout the reference as "VNC system"), comprising:

a server ("VNC server"; see Figure 1 on page 35) operable to generate user data ("pixel data") for use at a client station ("VNC viewer"; see Figure 1 on page 35); (page 33, specifically "In the virtual network computing (VNC) system, server machines supply not only applications and data but also an entire desktop environment that can be accessed from any Internet-connected machine...")

a client station ("VNC viewer") coupled to the server and structured to receive compressed data; a decoder component of the client station that is operable to transform the compressed data into a frame portion and an image generator structured to generate an image from the frame portion and show the image in a form for use by a user of the client station. (page 35, Figure 1 and specifically, "The technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces. It works at the framebuffer level... The endpoint with which the

user interacts (that is, the display and/or display devices is called the VNC client or viewer. The endpoint where changes to the framebuffer originate...is known as the VNC server...An update represents a change from one valid framebuffer state to another. In this sense, an update is similar to a frame of video...an update is only sent by the server in response to an explicit request from the client. All screen changes since the client's last request are coalesced into a single update.")

"VNC" does not expressly disclose a spatial compressor component of the server, that is operable to inspect the user data and generate spatially compressed data therefrom and a temporal compressor component of the server that is operable to inspect the user data and generate temporally compressed data therefrom, however, "VNC" does disclose wherein the server uses MPEG encoding that inspects user data and generates compressed data therefrom (page 35, specifically "The endpoint where changes to the frame buffer originate (that is, the windowing system and applications) is known as the VNC server... there are numerous other possible schemes [for encoding]...MPEG encoding.").

It is inherent within the teachings of "VNC" that the MPEG encoding component contains a spatial and temporal compressor that generate spatial and temporal compressed data from user

data. The Examiner recognizes that to establish inherency, extrinsic evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. See In re Robertson, 169 F.3d 743, 745, 49 USPO2d 1949, 1950-51 (Fed. Cir. 1999). The Examiner cites in this Office Action as extrinsic evidence "MPEG-1" which discloses that the MPEG encoding component contains a spatial and temporal compressor which takes a signal and performs a spatial and temporal compression on the signal (page 2, specifically the paragraph "A number of techniques are used to achieve a high compression ratio..."). Therefore, the extrinsic evidence provides a sufficient basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." See Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) and MPEP 2112.

Claim 15 is also rejected since claim 15 recites a system for transferring data that recites substantially the same limitations as recited in claim 1.

Regarding claim 2, "VNC" discloses the system of claim 1 wherein the server and the client station are coupled to one another by a communication link ("Internet") (page 33,

specifically "In the virtual network computing (VNC) system, server machines supply not only application and data but also an entire desktop environment that can accessed from any Internet connection machine..."), and wherein the server and the client station communicate to one another over the communication link using a remote desktop communication protocol ("VNC protocol"). (page 35, specifically Figure 1)

Claim 16 is rejected since claim 16 recites a system for transferring data that recites substantially the same limitations as recited in claim 2.

Regarding claim 3, "VNC" discloses the system of claim 2, further comprising a data server coupled to the server through a second communication link ("VNC protocol"), the server and the data server communicating by using a communication protocol other than the remote desktop communication protocol used by the server and the client station. (page 35, specifically "The protocol will operate over any reliable transport such as TCP/TP")

Regarding claim 4, "VNC" disclose the system according to claim 3, wherein the data server is a video server. (page 35, specifically "MPEG encoding for moving images" and "An update represents a change from one valid framebuffer state to another...an update is similar to a frame of video")

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Regarding claim 5, "VNC" discloses the system according to claim 1, further comprising one or more additional client stations each of which is coupled to the server and structured to receive the spatially compressed data and the temporally compressed data. (pages 33 and 34, specifically "In addition, VNC allows a single desktop to be accessed from several places simultaneously, thus supporting application sharing...")

Claim 19 is rejected since claim 19 recites a system for transferring data that recites substantially the same limitations as recited in claim 5.

Regarding claim 6, "VNC" discloses the system according to claim 1 wherein the frame portion is a bitmap. (page 35, specifically "A set of rectangles of pixel data makes a framebuffer update...")

Regarding claim 7, "VNC" discloses the system according to claim 1, wherein the frame portion is one frame of a video.

(page 35, specifically "MPEG encoding for moving images" and "An update represents a change from one valid framebuffer state to another...an update is similar to a frame of video")

Regarding claim 13, "VNC" discloses the system according to claim 1, further comprising a comparison component of the server that is operable to examine the user data, the spatially compressed data, and the temporally compressed data, and to

select any combination therefrom to transmit to the client station. (page 35, specifically "Each rectangle may be encoded using a different scheme. The server can therefore choose the encoding most appropriate for the particular screen content being transmitted and the available network bandwidth.")

Regarding claim 14, "VNC" discloses the system according to claim 13 wherein the comparison component is structured to select the smallest combination or sub-combination of the user data, the spatially compressed data, and the temporally compressed data prior to transmitting it to the client station. (page 35, specifically "Each rectangle may be encoded using a different scheme. The server can therefore choose the encoding most appropriate for the particular screen content being transmitted and the available network bandwidth.")

Regarding claim 24, "VNC" discloses a method of transferring data in a system including a server coupled to a thin client by a communication link that carries a remote desktop protocol ("VNC protocol"), the method comprising:

on the server ("VNC server"):

generating multimedia data; compressing the multimedia data to make compressed multimedia data; and transmitting the compressed multimedia data to the thin client; (page 33, specifically "In the virtual network computing (VNC) system,

server machines supply not only applications and data but also an entire desktop environment that can be accessed from any Internet-connected machine..."; page 35, specifically "The endpoint where changes to the frame buffer originate (that is, the windowing system and applications) is known as the VNC server... there are numerous other possible schemes [for encoding]...")

on the thin client ("VNC client" or "VNC viewer"; page 35, specifically "VNC is truly a 'thin-client' system."):

receiving the compressed multimedia data from the server; de-compressing the compressed multimedia data into useable data; and presenting the useable data on the thin client. (page 35, Figure 1 and specifically, "The technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces. It works at the framebuffer level...The endpoint with which the user interacts (that is, the display and/or display devices is called the VNC client or viewer. The endpoint where changes to the framebuffer originate...is known as the VNC server...An update represents a change from one valid framebuffer state to another. In this sense, an update is similar to a frame of video...an update is only sent by the server in response to an explicit request from the client. All

screen changes since the client's last request are coalesced into a single update.")

"VNC" does not expressly disclose compressing the multimedia data temporally and spatially, however, "VNC" does disclose wherein the server uses MPEG encoding that inspects user data and generates compressed data therefrom (page 35, specifically "The endpoint where changes to the frame buffer originate (that is, the windowing system and applications) is known as the VNC server... there are numerous other possible schemes [for encoding]...MPEG encoding.")

Claim 24 is rejected for the same reasons for the findings of inherency as provided for claim 1.

Regarding claim 25, "VNC" discloses the method of claim 24, further comprising storing the useable data in a cache on the thin client. ("framebuffer"; page 35, Figure 1 and specifically, "The technology underlying the VNC system is a simple protocol for remote access to graphical user interfaces. It works at the framebuffer level...")

Regarding claim 26, "VNC" discloses the method of claim 24 wherein presenting the useable data on the thin client comprises generating an image on a display screen. (page 35, Figure 1 and specifically, "The technology underlying the VNC system is a

simple protocol for remote access to graphical user
interfaces.")

Regarding claim 27, "VNC" discloses the method of claim 24, wherein presenting the useable data on the thin client comprises showing a video clip on a display coupled to the thin client.

(page 35, specifically "MPEG encoding for moving images" and "An update represents a change from one valid framebuffer state to another...an update is similar to a frame of video")

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Regarding claim 28, "VNC" discloses the method of claim 27, wherein showing a video clip comprises showing a series of frames on the display. (page 35, specifically "MPEG encoding for moving images" and "An update represents a change from one valid framebuffer state to another...an update is similar to a frame of video")

Regarding claim 29, "VNC" discloses the method of claim 27, wherein generating multimedia data comprises: establishing a data connection with a video server; retrieving video data from the video server; and converting the video data to display data. (page 35, specifically "MPEG encoding for moving images" and "An update represents a change from one valid framebuffer state to another...an update is similar to a frame of video")

Regarding claim 30, "VNC" discloses the method of claim 24 wherein a plurality of thin clients are coupled to the server,

the method further comprising transmitting the compressed multimedia data to the plurality of the thin clients coupled to the server. (pages 33 and 34, specifically "In addition, VNC allows a single desktop to be accessed from several places simultaneously, thus supporting application sharing...")

Regarding claim 31, "VNC" discloses the method of claim 30 wherein transmitting the compressed multimedia data to the plurality of the thin clients comprises transmitting the compressed multimedia data to the plurality of thin clients simultaneously. (pages 33 and 34, specifically "In addition, VNC allows a single desktop to be accessed from several places simultaneously, thus supporting application sharing...")

Regarding claim 32, "VNC" discloses the method of claim 24 wherein de-compressing the compressed multimedia data comprises creating bitmaps of data. (page 35, specifically "The display side of the protocol is based on a single graphics primitive:

Put a rectangle of pixel data at a given x,y position.")

Regarding claim 38, "VNC" discloses the method according to claim 24 wherein compressing the multimedia spatially and temporally comprises:

performing a procedure on the multimedia data intended to compress the multimedia spatially and determining if the first procedure created a result smaller than the multimedia data.

(page 35, specifically "Each rectangle may be encoded using a different scheme. The server can therefore choose the encoding most appropriate for the particular screen content being transmitted and the available network bandwidth.")

Regarding claim 39, "VNC" discloses the method according to claim 24 wherein compressing the multimedia spatially and temporally comprises:

performing a procedure on the multimedia data intended to compress the multimedia temporally and determining if the procedure created a result smaller than the multimedia data. (page 35, specifically "Each rectangle may be encoded using a different scheme. The server can therefore choose the encoding most appropriate for the particular screen content being transmitted and the available network bandwidth.")

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

⁽a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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The factual inquiries set forth in *Graham* v. *John Deere*Co., 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-9, 20-21, and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over "VNC" in view of US Patent 5 864 711 to Mairs et al.

Regarding claim 8, "VNC" discloses the system according to claim 1.

"VNC" does not expressly disclose wherein the user data comprises data that is for the use of the client station at a first and a second time, wherein the temporal compressor is structured to perform an XOR operation using data for the use of the client station at the first and the second time as inputs, and produce a difference output, however, "VNC" does disclose wherein the server uses MPEG encoding that inspects user data and generates compressed data therefrom as shown above and wherein the MPEG protocol inherently contains a temporal compressor that performs an operation using data for the use of

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the client station at the first and the second time as inputs and produce a difference output (see "MPEG-1", specifically "The algorithm uses block-based motion compensation to reduce the temporal redundancy.")

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Mairs does disclose performing an XOR operation (column 16, lines 16-23 and 40-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Mairs discloses that the method of compressing data using a temporal compressor to produce a differential output enables the output data to a client station to be transmitted in an optimal matter (column 2, lines 6-10). In view of these specific advantages and that both references are directed to transmitting data from a server to a client station using temporal compression, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Claims 20 and 34 are also rejected since claims 20 and 34 recite a system and method for transmitting data that contain substantially the same limitations as recited in claim 8.

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Claims 9, 21, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over "VNC" in view of US Patent 6 014 694 to Aharoni et al.

Regarding claim 9, "VNC" discloses the system according to claim 8.

"VNC" does not expressly disclose wherein the temporal compressor is further structured to perform a run length encoding on the difference output to create an encoded output, however, Mairs does disclose this limitation (column 17, lines 1-4).

Claim 9 is rejected since the motivations regarding the obviousness of claim 8 also apply to claim 9.

Claims 21 and 35 are also rejected since claims 21 and 35 recite a system and method from transferring data that contain substantially the same limitations as recited in claim 9.

Claims 10, 22, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over "VNC" and Mairs as applied to claims 9, 21, and 35 above, and further in view of US Patent 5 818 877 to Tsai et al.

Regarding claim 10, "VNC" and Mairs disclose the system according to claim 9.

"NVC" and Mairs do not expressly disclose wherein the encoded output comprises one or more number pairs, wherein a

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first number of the number pair indicates the number of zeros in a current run, and wherein a second number of the number pair indicates a symbol following the last zero in the current run, however, Tsai does disclose these limitations (column 7, line 45-column 8, line 20).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Tsai discloses that using number pairs in an encoded output allows for greater compression (column 8, lines 16-20). In view of these specific advantages and that the references are directed to using temporal encoding to create an encoded output, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Claims 22 and 36 are also rejected since claims 22 and 36 recite a system and method from transferring data that contain substantially the same limitations as recited in claim 10.

Claims 11, 23, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over "VNC", Mairs, and Tsai as applied to claims 10, 22, and 36 above, and further in view of US Patent 6 259 810 to Gill et al.

Regarding claim 11, "VNC", Mairs, and Tsai disclose the system according to claim 10.

"VNC", Mairs, and Tsai do not expressly disclose wherein if a last number of a row in the difference output to be run length encoded is a zero, for the last number pair in the encoded output, a first number of the last number pair indicates one less than the number of zeros in a current run, however, Gill does disclose these limitations (column 7, line 66-column 8, line 9; column 10, lines 4-46, specifically lines 35-46)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Gill discloses that the invention allows for greater compression of data (column 10, lines 13-14). In view of these specific advantages and that the references are directed to using temporal encoding to create an encoded output, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Claims 23 and 37 are also rejected since claims 23 and 37 recite a system and method from transferring data that contain substantially the same limitations as recited in claim 11.

Claims 12 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over "VNC" in view of US Patent 5 742 728 to Yanagihara et al.

Regarding claim 12, "VNC" discloses the system according to claim 1.

"VNC" does not disclose wherein the temporal compressor creates a lossless temporal encoding of the user data, however, Yanagihara does disclose this limitation. (column 1, lines 22-29, specifically "Huffman code")

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of these references since Yanagihara discloses that MPEG uses a lossless temporal encoding in order to compress video data. In view of these specific advantages and that the references are directed to using MPEG temporal encoding to create an encoded output, one of ordinary skill would have been motivated to combine these references and would have considered them to be analogous to one another based on their related fields of endeavor.

Claim 33 is rejected since claim 33 recites a method that contains substantially the same limitations as recited in claim 12.

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Claims 1, 4-7, 12, 15, 18-19, and 24-33 are rejected under 35 U.S.C. 102(a) as being anticipated by Official Notice.

The Examiner takes Official Notice (see MPEP § 2144.03) that a system known in the art as a "streaming media" system that contains a server and a thin client wherein the server contains a spatial compressor that performs spatial compression or "intraframe compression" and a temporal compressor that performs temporal compression or "interframe compression" or "motion compensation" using a lossless temporal compression technique known as "Huffman coding" or "run length encoding" to generate compressed data therefrom, the spatial and temporal compressors being embodied in a "codec", and wherein the compressed data is sent to a thin client which only executes a program which reconstructs the data to display a frame of video was well known in the art at the time the invention was made. The Applicant is entitled to traverse any/all official notice taken in this action according to MPEP § 2144.03, namely, "if applicant traverses such an assertion, the examiner should cite a reference in support of his or her position". However, MPEP § 2144.03 further states "See also In re Boon, 439 F.2d 724, 169 USPQ 231 (CCPA 1971) (a challenge to the taking of judicial notice must contain adequate information or argument to create on its face a reasonable doubt regarding the circumstances

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justifying the judicial notice)." Specifically, In re Boon, 169 USPQ 231, 234 states "as we held in Ahlert, an applicant must be given the opportunity to challenge either the correctness of the fact asserted or the notoriety or repute of the reference cited in support of the assertion. We did not mean to imply by this statement that a bald challenge, with nothing more, would be all that was needed". Further note that 37 CFR § 1.671(c)(3) states "Judicial notice means official notice". Thus, a traversal by the Applicant that is merely "a bald challenge, with nothing more" will be given very little weight.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following prior art teaches the state of the art in video compression systems including XOR operations on data and methods of lossless run length encoding:

US Patent 4 910 784 to Doddington et al;

US Patent 5 467 134 to Laney et al;

US Patent 5 563 664 to Yang et al;

US Patent 5 740 283 to Meeker;

US Patent 5 742 728 to Yanagihara et al;

US Patent 5 990 955 to Koz;

US Patent 6.008 847 to Bauchspies;

US Patent 6 085 247 to Parsons et al;

US Patent 6 091 777 to Guetz et al;

US Patent 6 130 895 to Tannhauser et al;

US Patent 6 148 109 to Boon et al;

US Patent 6 301 304 to Jing et al;

US Patent 6 687 410 to Brown;

US Patent Application Publication 2001/0041011 to Passaggio et al:

US Patent Application Publication 2002/0029285 to Collins;

US Patent Application Publication 2002/0067427 to Klein;

US Patent Application Publication 2002/0090139 to Hata et al;

US Patent Application Publication 2002/0131505 to Vidunas;
Richardson, T. et al. "The RFB Protocol", version 3.3, 16
July 1998, <www.realvnc.com/docs/rfbproto.pdf>, 26 pages;

Conklin, G. J. et al. "Video Coding for Streaming Media

Delivery on the Internet", IEEE Transactions on Circuits and
.

Systems for Video Technology, Vol. 11, No. 3, March 2001, pages
269-281;

DigitalTelevision.com, Inc. "Glossary of Digital Television Terms", publicly posted 1 September 2000, <web.archive.org/web/20000901010524/http://digitaltelevision.com</pre>/dtvbook/glossary.shtml>, 52 pages;

Wiltgen, Charles. "The Quicktime FAQ", version 0.45, 10 August 1995, <fusion.gat.com/docview/images/sample.pdf>, 73 pages.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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DAVID WILEY
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